The Affordable Care Act's Impact on EMS Billing and Operations at the Burnsville Fire Department

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _____

Abstract

The problem facing the Burnsville Fire Department was uncertainty of the effects on emergency medical services operations and billing of the Patient Protection and Affordable Care Act. The purpose of this applied research project (ARP) was to identify key aspects of the legislation as it relates to EMS billing in the Burnsville Department and recommend changes to adapt to the legislation. The following questions were addressed:

1. What provisions of the Affordable Care Act will effect EMS?
2. How will proposed changes effect EMS billing?
3. How are other EMS agencies in the Twin Cities preparing for the Affordable Care Act?

A descriptive research methodology was used for this project and a thorough literature review was accomplished both online and at the Learning resource Center at the National Fire Academy in Emmitsburg, Maryland. A survey was also sent to Twin Cities area EMS agencies with the goal of gauging how those agencies were preparing for the legislation. Lastly, Burnsville Fire Department internal statistical response and billing data was reviewed. The recommendations for the Burnsville Fire Department was to increase communication with neighboring healthcare agencies, explore options for utilizing an emergency medical services consulting service, further develop internal quality measures, explore options for alternative response to low acuity calls, and lastly, to conduct more research as the law is fully implemented.

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Introduction

On March 23, 2010 President Barack Obama signed into law The Patient Protection and Affordable Care Act, commonly called Obamacare, or hereinto called the Affordable Care Act (ACA) (Rovner 2013). This dramatic overhaul of the United States healthcare system has broad and sweeping implications to private citizens, businesses, government and the entire healthcare system. The problem facing the Burnsville Fire Department was uncertainty of the effects of the Patient Protection and Affordable Care Act on emergency medical services (EMS) operations and billing.

The purpose of this applied research project was to describe the potential effects of the Affordable Care Act on the Burnsville Fire Department's EMS billing and provide recommendations to EMS operations to ensure compliance with the law and ensure continued reimbursement. The following questions were addressed:

1. What provisions of the Affordable Care Act are most applicable to the EMS revenue and operations?
2. How will proposed changes of the Affordable Care Act affect EMS Billing and operations?
3. What changes are other EMS organizations in the Minneapolis area making as a result of the legislation?

A descriptive research method was used. A literature review was conducted both using the resources at the Learning and Resource Center (LRC) at the National Fire Academy in Emmitsburg, Maryland, online and other library resources. The results of a survey sent to EMS managers in the Twin Cities area described how prepared other EMS agencies are in the area to

deal with the ACA, changes that these other EMS agencies are making as a result of the ACA and who is helping to guide those changes.

Background and Significance:

The Burnsville Fire Department serves the city of Burnsville, Minnesota, a suburban community with a population of 60,000. The city is twenty-seven square miles and is located within the Greater Twin Cities Metropolitan area, fifteen miles south of Minneapolis/St. Paul, Minnesota. The city has grown rapidly over the past twenty five years, is 97% developed, and is the eleventh largest city statewide. The Burnsville Fire Department's primary service area includes a cross-section of transportation, energy, medical, retail, and civic infrastructure critical to daily city, county, state and regional operations.

The Burnsville Fire Department is a career department and consists of thirty-three cross-trained firefighter/paramedics who are dispersed between three shifts and two stations. Administrative support for field operations is provided by the department's full-time Fire Chief, two Assistant Chiefs, Fire Marshal, Fire Inspector, Training Captain, and an Administrative Assistant. In addition to fire, rescue, technical rescue and fire prevention services, the Burnsville Fire Department provides advanced life support (ALS) ambulance transport service to the community. In 2012, the department responded to 4,955 emergency calls for service, including 3,640 medical emergencies.

Like many city, county, and state governments, the current economic climate in the United States has proved financially challenging for the City of Burnsville. Decreasing property values, which make up the majority to revenue for the city, has decreased overall revenue to the city and state statutory limits on tax levies hampers the ability of the City to make up for lost revenue (Associated Press 2013). The effect of this difficult economic time is greater concern

and heightened awareness of revenue generated by the city. Currently, the Burnsville Fire Department, like most emergency medical services agencies, bill patients for EMS transport. While the revenue from EMS billing does not fund the department directly and instead funds the City's general fund, fees for service, according to the City's 2012 Comprehensive Annual Financial Report, represent 13% of total revenue for the city with EMS revenue being a large portion of that. Changes in revenue affect the fire department, and the city as a whole, and any change to revenue has deep implications both from a financial standpoint and also a political standpoint.

The Burnsville Fire Department has provided ambulance transport since 1984. As is standard in the industry, the department bills for services under a fee-based system: if a patient is treated or transported they are billed according to a set fee schedule. Emergency medical services agencies are reimbursed in essentially two ways: by private pay or by those that are covered under health insurance. In the City of Burnsville, according to final 2012 EMS revenue financial records, about 54% of patients are insured by government entitlement programs which include Medicare and Medicaid, 22% are covered under private insurance and another 21% are covered by no insurance and self-pay (City of Burnsville, 2012).

Throughout 2008 and 2009 the debate about healthcare was prevalent in the legislature and the presidential primaries. After Barrack Obama was sworn in as president, the debate for health care reform took front and center on the political stage. On March 23, 2010 President Barack Obama signed into law The Patient Protection and Affordable Care Act which contained a variety of provisions with broad impact on the health care system (Rovner, 2013). The law's full effect was designed to not take effect until 2014. As described in a 2012 overview created by the American Public Health Association, the provisions of the ACA are broad and sweeping.

According to the report, some of the key provisions of the law include an expansion of insurance coverage, including the guarantee that insured patients won't be dropped for pre-existing conditions, children up to the age of 26 can stay on their parents insurance plan, and an "individual mandate" that requires all Americans to obtain insurance coverage or pay a fine for not having coverage. Other provisions include a ban on lifetime limits, prevention services that must be offered at no cost, and an expansion of prescription drug benefits. Lastly, the law enacted a number of systems to focus on public health including new funding for state and local prevention efforts, grants, and expansion of food nutritional labeling.

Although the broad provisions are in place, many rules that relate to specifically how those changes will occur still need to be sorted out by state and federal agencies (Kliff,2013). In addition, there is ongoing debate in congress about repealing portions or all of the law. Both of these factors have left many wondering how to comply and what the net result of the law will be (Sakry, 2013).

This paper relates to two of the United States Fire Administration's strategic goals: (a) improve local planning and preparedness, and (b) improve the fire and emergency services' capability for response to and recovery from all hazards (United States Fire Administration Strategic Goals, 2012).

This research paper also relates to the objectives contained within the National Fire Academy course curriculum of Executive Development including the units on change management and exercising leadership. This research paper is an analysis of the effect of the ACA on EMS billing and operations and will recommend a variety of organizational changes as a result of the law. Implementing these changes to the Burnsville Fire Department will require both exercising leadership and utilizing the principles of change management.

Literature review:

In the expansive text of the Patient Protection and Affordable Care Act (2010) the ambulance industry and fire service is hardly mentioned. When reviewing literature on the topic of the ACA and EMS, it became apparent that there were limited published works on these specific areas. Existing articles, research, interviews, and reports were mainly brief pieces in trade magazines, websites and other similar sources. Because of this, these sources became the mainstay of the literature review that occurred both on the internet and the Learning Resource Center at the National Fire Academy.

Sources outside of the fire and EMS industry were used, but because of the multitude of unknowns with the ACA combined with the sheer number of impacts of the law, the challenge became keeping the scope of the literature review to the specific topics that directly related to EMS revenue and relationships to operations. As previously discussed, there are portions of the law that will impact EMS indirectly as well. There has been much discussed about the employer mandate and debate about whether employers, including EMS agencies, will continue to carry private insurance (Thurm, 2013). Also, certain provisions of the ACA require part time employees to be covered under employer medical insurance when a certain annual hour limit is capped (Thurm, 2013). These provisions will no doubt affect many industries, EMS included. This could affect the employee/employer relationship for thousands of EMS workers around the country and there has been speculation about small EMS providers reducing their workforce or going out of business altogether (Soptelean, 2012). However, the scope of the research for this project is designed to be specific to those areas of the ACA that affect EMS revenue and operations.

A review of the Affordable Care Act law lends few clues into which provisions directly affect EMS. Those not well versed in healthcare law and terms, or the non-lawyer, will likely have difficultly directly interpreting the over 900 pages of legislation to a practical level. What is clear, is that the ACA does not provide specific framework for EMS agencies to follow. There are no apparent direct provisions outlining or mandating EMS agencies specifically to do anything. Instead the provisions of the ACA affect insurers, citizens, and the healthcare industry as a whole without specifics in most cases. As such, the literature review focuses on the published interpretation of industry leaders within the fire and emergency medical services industry.

1. What provisions of the Affordable Care Act are most applicable to the EMS revenue and operations?

Ludwig (2013) speculated that the most impactful provision of the Affordable Care Act, is the formation of Accountable Care Organizations (ACOs). The Center for Medicare and Medicaid Services (CMS), the agency responsible for overseeing the administration of Medicare and Medicaid services and benefits, defines ACOs as “an organization of health care providers that agrees to be accountable for the quality, cost, and overall care of Medicare beneficiaries who are enrolled in the traditional fee-for-service program who are assigned to it." (Centers for Medicare and Medicaid Services, 2011). As part of the ACA legislation, CMS created the rule permitting ACOs to care for groups of Medicare patients and demand that ACOs provide efficiencies and lower the total cost of care for those patients (Centers for Medicare and Medicaid Services, 2011). To accomplish this, ACOs assume the financial liability of the total cost of care for assigned patients and have the responsibility to manage and pay for their entire medical treatment from preventive services, ongoing monitoring, and medical emergencies that

may arise (Lee, 2013). The effect of assuming that liability, Lee (2013) wrote, is that ACOs are highly motivate to create efficiencies, keep enrollees healthy by stressing the importance of healthy lifestyle and prevention services, and work with other organizations that can help them reduce the cost of care. In the end, ACOs will profit or lose money based on how much it costs to care for those patient groups (Lee, 2013). Ludwig (2013) and Metro (2013), wrote that this financial motive of ACOs will drive them to ask the fire service to adopt the same or similar efficiencies and innovation that ACOs and other partnering organizations are held to. Additionally, ACOs will likely work with fire based EMS services to assist in making sure patients are transported to appropriate facilities, referred to outpatient options when possible, and treated in the home when that opportunity exists (Ludwig, 2012). After years of the fire service simply responding to and reacting to emergencies Metro (2012) wrote that as a result of the ACA that "the fire service must find the answers to the critical question: What do we do *for* Mrs. Smith when she calls 911 versus what we do *to* Mrs. Smith." The development of ACOs would seem serves as a catalyst for the fire service to integrate with the entire healthcare system in new and creative ways.

Another key provision that will likely impact EMS is the emphasis on quality-based reimbursement for Medicare payment (Democratic Policy and Communication Center, 2012). Currently, most EMS agencies rely on fee based services where insurance companies, including Medicare, are billed a specific amount based simply on the treatment or transport of an enrolled patient. Insurance companies do not typically demand any assurance of quality of care, quality of patient care reporting, or other clinical measures (Metro, 2013). The emphasis of the ACA legislation, by design, will "make substantial investments to improve the quality and delivery of care." (Democratic Policy and Communication Center, 2012). According to Erich (2011) part of

ACA is new quality measures that will, for the first time, link payment levels, to quality measures. Erich (2011) also points out that the days of fee based ambulance systems are likely going to end and ambulance payments will be linked to quality measures and assuring patients are treated appropriately according to established guidelines and transported to appropriate facilities. Lastly, he writes that in 2011 Medicare billing hospitals had to comply with twenty-five different quality measures. Similar quality measurements will likely see their way into EMS in the future.

In a broad sense, the most complex provision will be the change of virtually everyone now being covered under health insurance. Ludwig (2013) writes "…perhaps the biggest impact will occur when an estimated 32 million Americans are added to the health insurance rolls and 105 million more will no longer have a lifetime limit on coverage." To accomplish this, according to McCallion (2012) ACA will expand existing Medicaid to individuals who earn up to 133% of federal poverty guidelines. McCallion (2012) also cites the U.S. General Accounting Office estimates of 30 million Americans not previously covered, now being covered under health insurance. Because EMS revenue is directly linked to insurance reimbursement, this provision will clearly impact EMS in a multitude of ways.

2. How will proposed changes of the Affordable Care Act affect EMS Billing and operations?

One of the first effects is the potential for increased call volume for EMS agencies. McCallion(2012), Ludwig (2013), Metro (2013) and the National Center for Policy Analysis (NCPA) all predicted an increase in call volume as a result of the law. A NCPA analysis (2010) reported that "insured individuals consume nearly twice as much healthcare as the uninsured, on the average". Additionally, they reported that Medicare and Medicaid enrollee's

disproportionality use emergency services compared to the privately insured and that low income Medicaid enrollees are less likely to have independent means of transportation, making ambulance utilization more likely. The same report cites research that shows that those on public insurance, such as the Medicaid expansion created under ACA, utilize an ambulance inappropriately at 75.3% versus 17.5% for those privately insured. McCallion (2012) also wrote that "people who previously did not call 911 because they feared they couldn't pay for the cost of transport and hospital bill, will now be able to call for service". While no literature offered insight into predictions about how much call volume will increase, numerous sources cited the probability that it indeed would increase.

Another change that will affect EMS is the need to partner with hospitals, clinics, and accountable care organizations. Zavadsky (2012) commented that "visionary EMS leaders have wished for this environment for years" and with the creation of ACOs, and the subsequent need to minimize the total cost of care for patients, the time is perfect for EMS to partner with other healthcare industries to improve patient care. McCallion (2012) wrote that with the ACA, healthcare models are changing to demonstrate the effectiveness of alternative care models to care for patients at home, provide care at other locations other that hospitals, and treat and release patients without admission. This serves to avoid costly hospital admissions, as well as unnecessary hospital re-admission. In an article in the Santa Cruz Sentinel, author Jondi Gumz, described how the ACA will change how we treat substance abuse, for example, utilizing the principles of alterative care models. She describes how frequently extensive use of inpatient programs have been used in the past with substance abusers. With the passing of ACA, Gumz described the new emphasis on keeping substance abuse patients at home where they will receive counseling services, alcohol and drug testing, referral services, and access to other programs, all

through more convenient, and cost effective, means. Zavadsky (2012) wrote in regards to EMS agencies working with hospital systems: “The hospitals can determine patients they feel are at risk for readmission, such as CHF, COPD or recurrent falls, and you can offer to have a crew or an individual visit the patient at home to see what the risk are that may lead to a readmission.” The opportunity, Zavadsky (2012) explained, is that the EMS industry, as a result of ACA, is no longer an isolated part of the healthcare system, simply reacting to 911 calls, and instead must integrate and collaborate at whole new level to provide prevention, community based, and services. ACOs are designed to provide efficient, non-duplicative services. Upon review, every author who wrote on the topic of EMS, ACO’s and the ACA described the unique opportunity that EMS agencies must seize to collaborate in new and exciting ways.

As we move towards a managed care health system under ACA there is also much discussion about payer models and billing practices. Shabkie (2012) wrote, “The current system of reimbursement for transporting a patient as the only funding stream for an EMS agency could be coming to an end”. As previously discussed, EMS agencies typically bill for service to insurance companies, state-contracted Medicaid organizations or CMS for Medicare patients. Under the managed care system of ACOs, this model of EMS agencies dealing directly with insurance companies on behalf of patients will likely be eliminated (Ludwig, 2012). Instead, because ACOs are directly responsible for the total cost of care of patients, EMS agencies may find themselves creating contracts and negotiating fees, quality measures, and other terms with ACOs themselves (Erich 2011). Direct billing to patients may be at an end (Shabkie 2012). This is perhaps uncomfortable territory for many in the EMS field who, for decades, have used the same billing practices and have little experience, or the means, of negotiating billing terms (Swanson, 2010).

Lastly, one of the more visible changes to EMS as a result of the ACA will be a more emphasis on prevention, follow-up, and primary care activities instead of relying on transport to emergency departments (Goodwin 2012). Ludwig (2012) also wrote that the traditional role of EMS is poised to change and the effect will involve EMS using and referring patients to alternative healthcare aside from an emergency department. Goodwin (2012) and Ludwig (2012) wrote that programs such as community paramedic programs, or other alternative transport or response models, which change the scope of paramedic care to a more prevention and primary care model, is the future for EMS agencies under the payer models and ACO requirements created with the Affordable Care Act. The possible benefit of the community paramedic model has been discussed in EMS circle for some time. Mannie Garza wrote an article in the Journal of Emergency Medical Services (JEMS) in 2007 and described one of the first community based paramedic programs found in Nova Scotia. That program, she describes, "significantly reduced hospitalizations, visits to physicians' offices and emergency departments, and residents travel times and costs." She goes on to describe how several other Canadian jurisdictions are taking on similar projects. In the United States, the community paramedic model seems to be gaining traction as well and Minnesota, according to a JEMS article (Dayton Daily News, 2013), serves "the epicenter of the community paramedic movement". In 2011, Minnesota became both the first state to adopt a formal certification program and the nation's first formal community paramedic training program. (Dayton Daily News 2013). The push for a community paramedic model has accelerated with the passing of the ACA and many EMS organizations around the country are exploring programs and breaking the traditional emergency only response model of the past (Goodwin, 2012).

Procedures

This applied research project used a descriptive research methodology as outlined in the sixth edition of the publication manual from the American Psychological Association (APA). The APA Manual is referenced for this applied research project in conjunction with the EFO Operational Policies and Procedures Manual (2003).

The purpose of this research project was to explore the effects of the Accountable Care Act on the Burnsville Fire Department and to recommend solutions. This was accomplished in essentially three ways: by conducting a through literature review on the topic, review of current Burnsville Fire Department Data, and a survey to Minneapolis area EMS agencies. This information was used to answer the research questions of this project.

Limitations and Assumptions+

One of the limitations noted in the literature review was the limited nature of comprehensive research on the topic of the Accountable Care Act in regards to EMS agencies and fire departments. While there are a variety of EMS and Fire trade magazine articles, periodical articles, position papers and interviews on the topic, a search for comprehensive research, organizational strategic plans, or other research failed to discover sources of a comprehensive nature. An additional limitation is that the legislation is so new, and many provisions do not take effect for over a year or more, that many of the effects described by industry leaders are mere hypothesis and speculation at this point. Once the legislation is enacted and fully implemented, than retrospective review of data will be more comprehensive and organizational, regional and industry wide trends will become more apparent.

The last limitation, on a grander scale, is the regional variability in EMS operations, population, payer mix, and public policy that effect EMS. Attempting to utilize data and

hypothesis from industry leaders from other agencies around the country presents numerous challenges when attempting to draw conclusions from potentially unlike sources. While broad concepts on the effect of the legislation can be nearly universally applied, specific conclusions and direct relationships can be elusive and difficult to directly relate. As such, the survey included only agencies within the Twin Cities metro area, which the author has primarily knowledge of similarities and dis-similarities.

Survey of Twin Cities area EMS Agencies

Research question 3 asks what changes other EMS agencies are making in the Twin Cities area to prepare for the ACA. To accomplish this, a survey (Appendix A) was sent to all EMS agencies in the Twin Cities, seven county metro areas, that provide Advanced Life Support (ALS) ambulance transport. Those that received the survey were either the head of the organization, or were in an executive leadership position in the organization that reported to the head (as opposed to field level supervisors). The survey was sent to the heads of the thirteen EMS agencies that fit the criteria. The online tool Survey Monkey was used and the participants were emailed the link with instructions on both the purpose of the survey and how to complete it. Participants were emailed two reminders to complete the survey. No emails were returned with an error in email address, so presumably all participants received the survey. The survey was kept within the Twin Cities metro area to gauge those organizations which the Burnsville Fire Department may interact with either during response or at an administrative level while at regional committees. EMS services in the rural areas of Minnesota where excluded from the survey due to the fact that they have much different needs than suburban Minneapolis and Saint Paul area EMS agencies. They typically face longer transport time, less access to specialty hospitals, transport only to one or two hospitals, and variety of other aspects unique to rural

EMS. Keeping the survey to similar urban and suburban ALS services reduced regional variability in EMS service delivery, payer mix, and patient subsets. The survey questions attempt to gauge specific organizational awareness and readiness for ACA and solutions which they have begun to explore. If trends discovered by the survey pointed to regional issues, the result could serve as a starting point for development of new partnership and collaboration amongst area EMS agencies. A total of eleven surveys were returned and the results reported in Appendix C.

The literature review revealed that there are many unknowns about the ACA law but that EMS agencies need to begin to prepare for changes associated with it. The literature review also identified some key provisions that will affect EMS including the development of ACO's, new Medicare requirements and the net effect of everyone being insured. The research questions were framed around these central points. Lastly, questions were asked about specific changes that the literature review revealed were recommended, such as the use of alternative care strategies such as community paramedic, quality measures, and partnering with other healthcare agencies.

Burnsville Fire Department Data

Burnsville Fire Department data was gathered retrospectively from the Departments' Imagetrend reporting software database and also from the Department's EMS billing company, Digitech Computers in an attempt analyze payer mix to estimate what affects new insurance models would have on BFD reimbursement. Much of the data used in this research and reports were previously unpublished and had not been previously researched within the Department.

Definition of Terms:

ACA- Accountable Care Act:

ALS- Advanced Life Support

BLS-Basic Life Support

CMS- Center for Medicare/Medicaid Services

EMS- Emergency Medical Services

ER- Emergency Room

ACO- Accountable Care Organization

Results

Research questions one and two both have components that impacted EMS billing and operations and determining what provisions of the ACA will affect the Burnsville Fire Department. Ludwig (2013) and McCallion (2012) both make the individual mandate will create an environment where more people are insured potentially benefitting EMS. To better understand how this may affect the Burnsville Fire Department, EMS billing data was reviewed. In the City of Burnsville, internal data showed about 54% of patients are insured by government entitlement programs (Medicare and Medicaid), 22% are covered under private insurance and another 21% are covered by no insurance and self-pay. The Burnsville Fire Department bills Medicare and Medicaid over $2 million dollars each year and receives about $750,000 for those services. Private insurance was billed a total of approximately $900,000 with about $800,000 paid. Lastly, approximately $500,000 was billed to patients directly, with approximately $140,000 being received.

An analysis of those with non-insurance whom the Burnsville Fire Department was not reimbursed from was also analyzed. As Ludwig (2013) and Metro (2012) stated those currently without insurance before the ACA will most likely be insured after the full implementation of the

law. Data regarding the quantity of non-insured, who by reviewing the above billing data have a collection rate of approximately 28%, is telling to potential increases in revenue once they become insured and are not directly responsible for payment. The data showed that in 2012, 240 patients were transported who did not have insurance and where no reimbursement 20ccurred. This represents about 1% of the annual EMS transports. Further analysis indicates the average revenue collected from Medicare and Medicaid per patient is equal to $466.50 and private insurance average revenue collected is $1,096. Estimation (see Figure 1) of potential revenue was performed with the assumption that either some or half of the patients would now be covered under some type of insurance, either public or private, and that their transport, which BFD was previously not reimbursed for, would now be reimbursed either the $466 Medicare rate or the $1,096 private insurance rate. Those that were uninsured may not actually become insured. This is based on the prediction by both Roy (2013) and Klein (2013) that some people may still choose to pay a fine in lieu of signing up for insurance as required by the law.

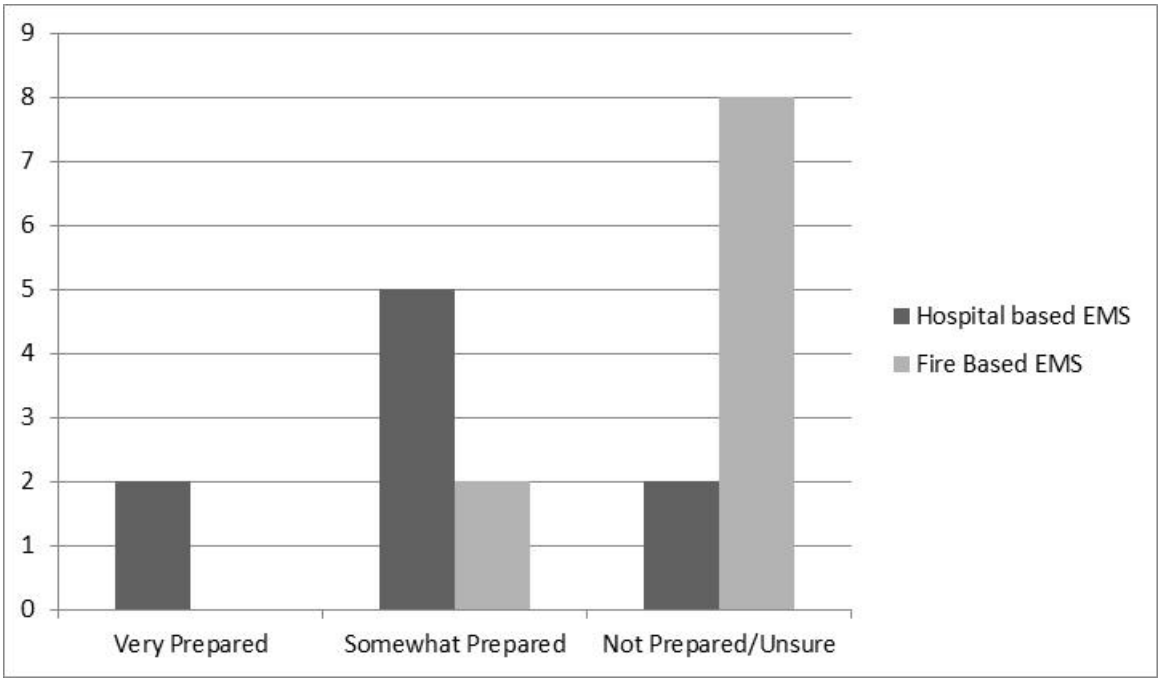
Figure 1

Number of Newly Insured	Average Reimbursement	Total Estimation of New Revenue	% of Change in Current Revenue
120	$466	$55,920	3%
120	$1,096	$131,520	7%
240	$466	$111,840	6%
240	$1,096	$263,040	14%

In summary, the effect of the individual mandate requiring insurance, could increase revenue to the City of Burnsville an estimated 3% to 14% based on 2012 data.

Research question three attempts to address what the EMS community in the Twin Cities area is doing as a result of the Affordable Care Act. To accomplish this, a survey (appendix A) was used. Questions one and two in the survey asked the familiarity of the ACA and organizational readiness to deal with the upcoming changes. The two survey questions were combined and matched using question six to determine whether they were hospital based versus fire based. Figure 2 shows the results. In summary, based on the questions, no fire based EMS felt very prepared or aware of the ACA provisions whereas the hospital based EMS systems were clearly more comfortable.

Figure 2



When it came to changes EMS agencies were making as a result of the law the survey was broken down into changes that have already been implemented (figure 3) and changes that

were being considered in the future (figure 4). This was asked based on the desire to collect data about the status of the various organizations and their progress toward anticipated changes. The survey revealed that most agencies had not yet implemented changes to their system based on the ACA but also, that agencies did anticipate making changes in the future. The most common change organizations had already implemented was the addition of clinical quality measures and the least common was staffing changes, with only one organization indicating that they had already added or reduced personnel. When it came to changes they predicted in the future, the most common change being considered was the need to review internal policies and procedures and consideration of community paramedic or other alternative response models.

Figure 3

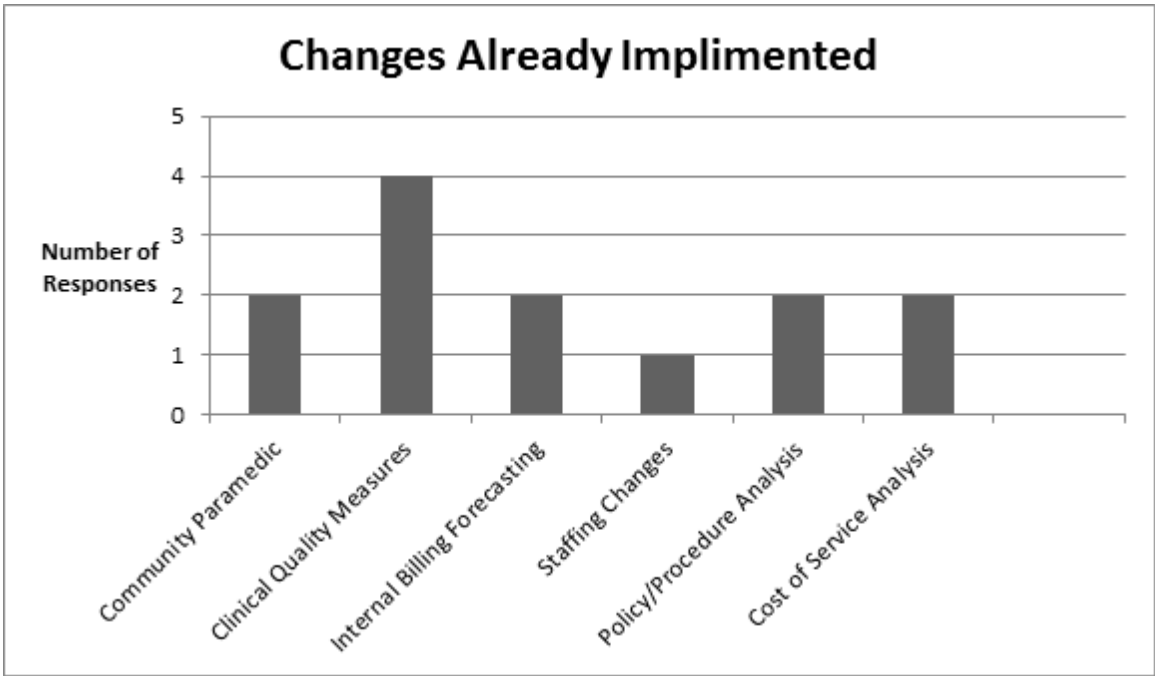
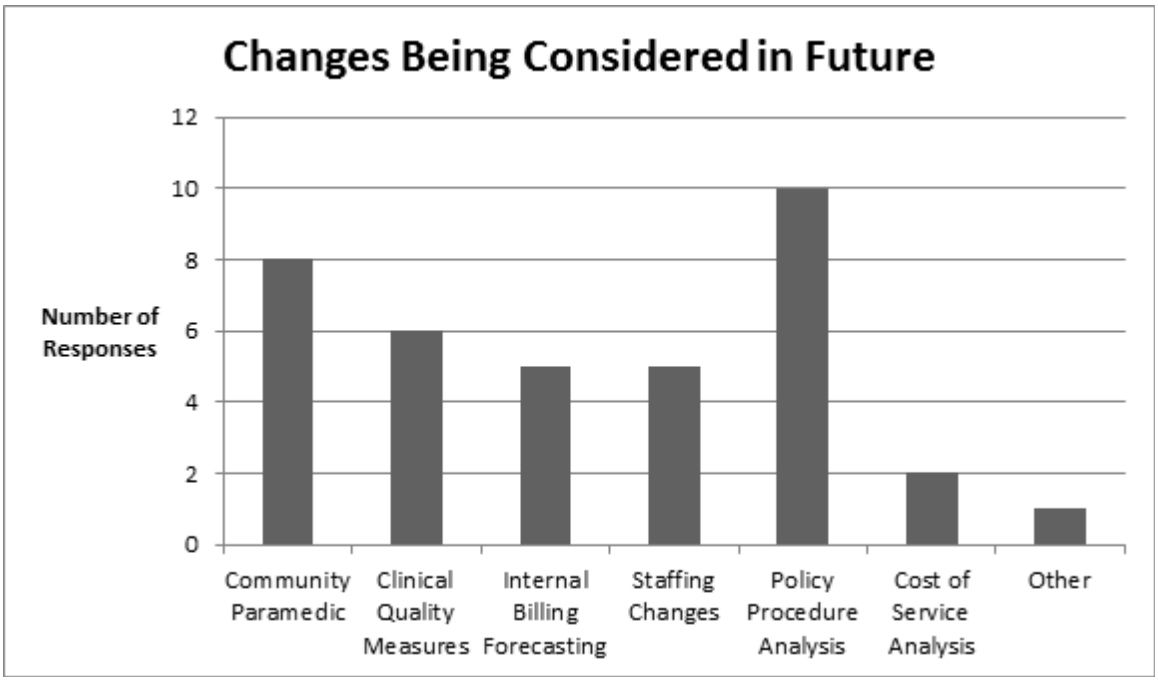
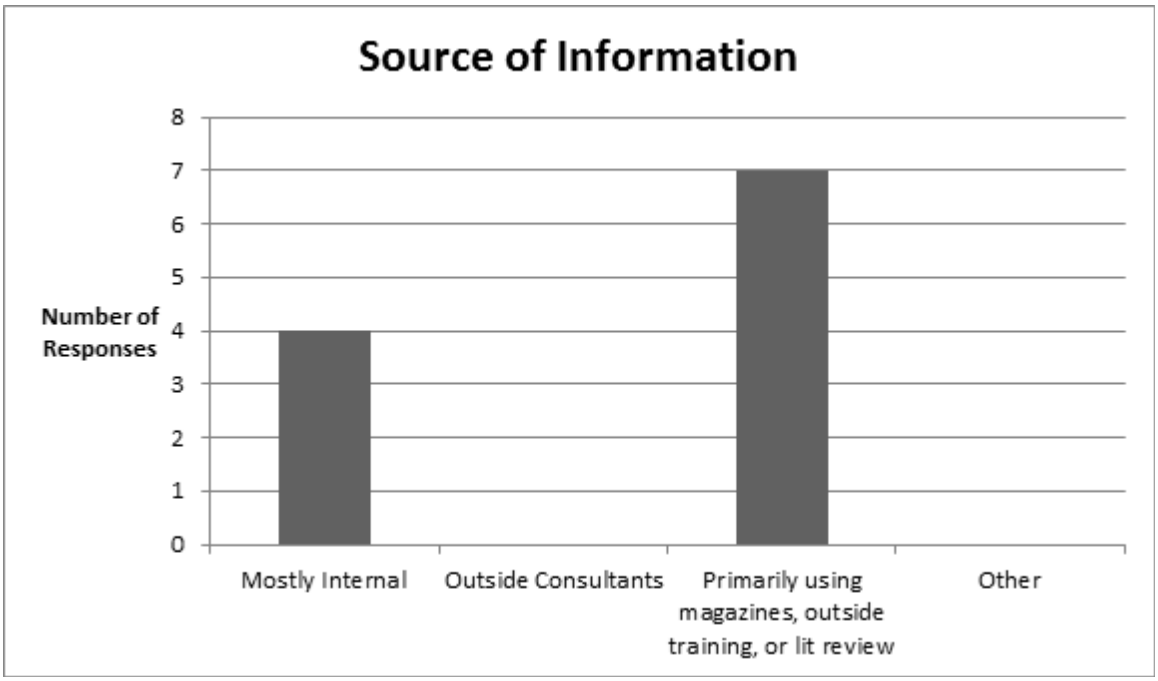


Figure 4



The last survey question tabulated who was helping organizations develop strategies to adjust to the Affordable Care Act. Shown in figure 5, the majority of survey respondents were not using paid consultants or relying solely on internal expertise, but rather were relying on outside training and literature review to assist them in making strategic decisions for their organization as it relates to the Affordable Care Act.

Figure 5



Discussion/Implications

By all expert accounts, the Affordable Care Act stands to be a watershed moment for the EMS industry. The ACA appears ready to transform our entire healthcare system, taking EMS with it along the journey. At times, change happens slowly, with effects taking years to become apparent. It permits an industry time to adapt. The opposite appears true with key provisions of the law. Accountable care organizations have already begun to receive Medicare patients and those organizations are already looking to EMS to be part of cost reduction strategies. Medicare is already holding healthcare agencies to a higher standard of measureable quality. By all intense purposes, the changes are happening before our eyes.

When the political and economic climate is factored in, the stakes have never been higher. Emergency medical services revenue represent an over $1 Million revenue source for the City of Burnsville and in these budget times, revenue and expenditures are tightly monitored.

Small changes in revenue have real world implications. Across the country, cities have had to make tough financial decisions in the wake of the ailing economy, falling home prices, a sluggish economy, and loss of tax revenue. Costa Mesa, California, for example, laid off nearly half their workforce in 2012, more than 200 of their 450 employees (Medina, 2012). In the City of Detroit, 164 firefighters were subject to layoff in 2012 (Hackney, 2012). In a massive workforce reduction; the City of Philadelphia is eliminating 3,700 school employees this year (Woodall, 2013). Here in Minnesota, the stakes are the same with the state facing an over $600 million budget deficit projection for next year (Ragsdale, 2013). Many cities in Minnesota, and around the country and in Burnsville, are seeing reductions in revenue as a result of decreased property values over the past ten years (Associated Press, 2013). For many cities, Burnsville included, that budget shortfall can be made up for by increasing local property taxes, however, this year the Minnesota legislature passed a bill capping property taxes at 3% (Ragsdale, 2013). So in essence, the City of Burnsville faces decreasing revenue from property taxes and is statutorily limited on some options to increase revenue. The Burnsville Fire Department must take the ACA seriously as an imminent threat to financial solvency and begin to adapt to the rapidly evolving system.

The literature review highlights several effects of the ACA on the Burnsville Fire Department. Some of those are of particular concern and the implications will be further discussed here; starting with the potential for increased call volume. The Burnsville Fire Department is currently responds to nearly 5,000 requests for service per year with two stations. The potential for adding volume on top of an already busy systems is concerning particularly when coupled with the financial status of the city and the likely inability to financially sustain

more staff. It is difficult to predict, based on the literature review what that run volume increase may be. The only means to predict increases will be to monitor data moving forward.

Another implication discussed in the literature review is the potential changes to billing practices. Currently, the Burnsville Fire Department uses a third party company, based out of the New York State that provides EMS billing services on behalf of the city. The potential implication of having to negotiate contracts with accountable care organizations based in the Twin Cities is a service not currently being provided under current contract. Further, there is currently no mechanism, fee schedule, or contract language that centers on alternative transport methods and billing for anything other than traditional transport and treatment models. It would appear, based on the literature review, that negotiating with ACOs and developing billable means for transport alternatives are key aspects moving forward. The aspect of quality control was also found in the literature review and described the potential requirement that EMS agencies adopt clinical quality measures. The Burnsville Fire Department currently has an EMS quality management program in place and provides its own internal continuing education. The quality management program revolves around retrospective review from both the physician medical director and Assistant Chief of EMS, data review, shift supervisor review and finally, peer review by a select group of firefighter/paramedics on the department. The implications if quality provisions of the ACA were enacted could potentially require a comprehensive overhaul of the entire EMS quality management program, as well as a review of the education program. This has both time and budget impacts depending on the scope of requirements.

When the results of the survey are considered, the main difference is in preparedness between the hospital-based EMS services versus fire departments. Fire departments, according to the survey, feel much less prepared and ready to address the ACA. This seems to makes

sense. In the Twin Cities area, the hospital-based EMS services are part of large healthcare systems that generally combine clinics, physician services, physical and occupational therapy, hospitals, and emergency medical services under one name. It also generally includes the vast array of administrative, budgetary, political and legal infrastructure to independently support the entire system. This provides those EMS systems with a depth of expertise and capacity for change in the healthcare system not typically found in the fire service. For the Burnsville Fire Departments there must be balance between EMS needs with the other operational areas of the department such as rescue, firefighting, and incident command and also balance the public policies set forth by elected officials. Reorganizing or hiring staff or major strategic direction changes require time and effort not necessarily found in the private EMS arena. This gap in preparedness on the part of fire agencies is alarming, but also represents an opportunity. If non fire-based EMS agencies are comfortable with the ACA, it would seem to make sense for the Burnsville Fire Department and other fire departments to collaborate with those organizations to gain insight. Additionally, there is an opportunity for fire-based EMS agencies to work together and try to share ideas and develop plans as it would appear they are likely in the position of dealing with a variety of unknowns. When coupled with Figure 5, the fact that a majority of agencies are relying on external training speaks again to the lack of institution knowledge on the topic and further supports the idea of collaboration and cooperation.

When looking at what changes have already been implemented versus those that are being considered it seems to support the concept that most organizations are still planning out ideas. Organizations, it would appear, have far more plans than they do implemented ideas. Those agencies, the Burnsville Fire Department included, that are still at the infancy of understanding and addressing the law and would appear to be in the same position as other EMS

agencies. This again speaks to the opportunity for the Burnsville Fire Department to collaborate with other agencies as they also adjust their operations to suit the changing times.

Recommendations:

Based upon the research there are several options that exist for the Burnsville Fire Department to adapt to the changing healthcare system. As discussed, EMS providers and leaders will find themselves facing a different healthcare system in the near future. As so, recommendations are based on those that need urgent attention and those that must be addressed in the future. Because there are many unknowns with regards to the ACA, these recommendations are based upon the most current information and projections based on this research project. As the full weight of the law is rolled out, additional recommendations, or adaptations to these recommendations may be prudent.

There are three key issues that must be addressed as soon as practical. First, the Burnsville Fire Department should deepen its relationship with key partners. Secondly, consider utilizing a consultant moving forward. Last, BFD should begin new clinical quality measures. The key strategic issue that need to be addressed in the future is how the Burnsville Fire Department can utilize staff to deliver care to meet the changing healthcare system, including alternative transport models and other prevention and community based services.

The most important recommendation that should be implemented as soon as possible is to deepen the relationship and dialogue between the Burnsville Fire Department, and area accountable care organizations, local healthcare providers, and administration from local hospitals. As the research shows, healthcare organizations will grow increasingly reliant upon one another. The department already enjoys a mostly positive administrative relationship with

area organizations. Key stakeholders, however, must be brought together to explore opportunities to collaborate, share data and truly improve the quality of care for the citizens of Burnsville. This group of stakeholders should begin to address frequent users of the EMS and ER system, how to prevent re-admission of certain at-risk populations, and begin to develop alternative care strategies that ensure patients are accessing healthcare in the most efficient means by using clinics, urgent care, and social services as needed. Because the law impacts healthcare agencies in much the same way, there are significant benefits to working through key provisions together and developing systems as group, as opposed to building them independently and trying to bring them together in the future. An added benefit to collaboration for the Burnsville Fire Department is that other organizations can assist the department in identifying further opportunities to improve and adapt. Collaboration and developing parallel plans to address similar issues related to the ACA will assist both the Burnsville Fire Department and those partnering agencies in complying with key provisions, building an integrated system, maintaining financial solvency, and providing integrated health to the citizens of Burnsville.

As shown by the survey used in the project, many EMS agencies find themselves in the unique position of feeling unprepared, but also using relying mostly internal staff to mitigate the effects. As of the time of the research, much of the law is yet to be enacted. Even now, certain rules are still undecided by the federal agencies that administer healthcare. Data takes time to evolve to operational changes and laws. Maintaining up to date information poses a significant challenge for BFD. In the years to come, following the implementation of the Affordable Care Act, a clearer picture will evolve as to the full weight and effects of the law. Leaders in the EMS industry both in Minnesota and across the United States will no doubt realize trends, study the issue, adjust their internal strategies and publish or speak to those results. A consultant, who is

intensively focused on the Affordable Care Act, may help the Burnsville Fire Department moving forward. Those services, if retained sooner, rather than later, can assure that BFD stays on the cutting edge of change and can adopt new strategies before negative consequences erupt. Additionally, it seems inevitable that the Burnsville Fire Department will need to negotiate terms with accountable care organizations and fees related to alternative transport models at some point. The Burnsville Fire Department will also need to have someone assist with contract negotiations, upkeep and compliance. Both of these items are beyond the technical expertise and workload of existing city or fire department staff.

Another recommendation is to begin to strengthen the existing EMS quality improvement program. As discussed, clinical quality and performance pay are likely to come. Although BFD has an existing quality improvement program, that program should be evaluated and expanded using existing Medicare and Medicaid quality measures as a framework. By taking steps now, it allows for program design and implementation to occur before an accountable care organization or other healthcare organizations places a requirement on the department.

The last recommendation, and perhaps the most complex, is that the Burnsville Fire Department should explore means to provide alternative response and transport. It is clear that the EMS industry is changing. With the power of the Affordable Care Act, and with accountable care organizations behind the wheel, in the near future EMS agencies will need to provide services other than traditional 911 response and ER transport. The Burnsville Fire Department needs to begin the process of deciding a roadmap to achieving this. There are several recommended starting points. First, BFD needs to find ways to train existing staff to the community paramedic level. This could be accomplished by sending a limited number of staff through as a starter. Those staff who completed the education, which is based locally in the

Twin Cities area, could use that education to help guide the program from an operational prospective. With Minnesota leading the way in the field of community paramedicine, the opportunities seem literally at the front door of the Burnsville Fire Department. The advanced scope of the Community Paramedic education will enable field staff to begin to better diagnose, refer, and treat low acuity patients. Additionally, without at least some community paramedics on staff who are focused on that service delivery model, some aspects of true collaboration with ACOs and other organizations may not be possible.

Additionally, as the department begins the framework towards alternative response and transport models, the leadership group at the Burnsville Fire Department needs to take the ACA into consideration when making day to day decisions about contract and outside services. There are many considerations when exploring new operational modalities and it is important to keep those in perspective. For instance, contracts for EMS billing services may need to be adapted, the way 911 and non-emergency calls are processed may need to change, it may require additional or new EMS equipment, new medical direction, and new or different employee qualifications when hiring. All of these have budget, union, political, and a variety of other impacts. It is imperative that fire administration be mindful of the goal and takes these into consideration moving forward.

The last recommendation is the need for further research to be completed. As of the time of this research, much of the law is yet to be enacted. Even now, certain rules are still undecided by federal agencies that administer healthcare and there is ongoing threats of repeal by Congress. In the years to come, following the implementation of the Affordable Care Act, a clearer picture will evolve as to the full weight and effects of the law. Leaders in the EMS industry both in Minnesota and across the United States, will no doubt realize trends, study the issue, adjust their

internal strategies and publish or speak to those results. Burnsville Fire Department should continue to seek out that information, stay abreast of the current events, evolving trends and current research on the issue.

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Appendix A

Survey of Twin Cities Area EMS Agencies

The Affordable Care Act (a.k.a Obamacare) was passed in 2010. As you are likely aware, there has been much discussion about the effects of the legislation on EMS particularly starting in 2014.

As part of the Executive Fire Officer (EFO) Program at the National Fire Academy, I am writing an Applied Research Project on the effects of the legislation on EMS within the Burnsville Fire Department. The goal of the research is to identify potential effects of the law on our system, and develop solutions to improve service to our citizens and ensure stable EMS revenue. One aspect of the paper is taking a broad look at what EMS organizations in the Twin Cities area are doing to prepare for the legislation and the potential effects on their system and revenue.

Your cooperation in filling out the survey will help guide the Burnsville Fire Department's future actions. Please fill out the attached survey.

1. How familiar are you with provisions of the Affordable Care Act and their potential consequences on EMS revenue?

	Count	Percent
Very Prepared	1	1%
Somewhat Prepared	5	45%
Unsure	4	36%
No Comment	0	0

2. At what level do you feel your organization is currently prepared to deal with the changing healthcare system?

	Count	Percent
Very Prepared	1	1%
Somewhat Prepared	3	27%
Not Prepared	7	64%
Unsure	0	0

3. As a result of the Affordable Care Act have you ALREADY IMPLIMENTED any of the following:

	Count	Percentage
Community Paramedic (or other alternative response model)	2	18%
Additional clinical quality measures	4	36%
Internal billing forecasting	2	18%
Staffing Changes (Increase or Reduction)	1	1%
Policy/Procedure analysis	2	18%

Cost of service analysis	3	27%
Needs Assessment	2	18%

Other:

4. As a result of the legislation, are you CONSIDERING any of the following: (Check all that apply)

Community Paramedic (or other alternative response model)	8	72%
Additional clinical quality measures	6	54%
Internal billing forecasting	5	45%
Staffing Changes (Increase or Reduction)	5	45%
Policy/Procedure analysis	10	90%
Cost of service analysis	4	36%
Needs Assessment	2	18%

Other:

Hiring Consultant

5. Who is helping your organization develop strategies to adjust to the Affordable Care Act?

Mostly internal employees	4	36%
Primarily utilizing outside consultants	0	0
Primarily using trade magazines, outside training, and/or literature review.	7	63%
Other	0	

6. How would you describe your organization?

Fire Based	6	54%
Hospital System based EMS	4	36$